

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=AND</i>			
<u>L10</u>	L9 same (SCF or cytokine)	21	<u>L10</u>
<u>L9</u>	L8 same (implanting or depositing or regeneration or repair or generate)	156	<u>L9</u>
<u>L8</u>	(cardiac or myocardium or myocardial or heart) same (stem adj cell)	1488	<u>L8</u>
<u>L7</u>	L5 and ((cardiac adj stem) adj cell)	4	<u>L7</u>
<u>L6</u>	L5 and (HSC)	36	<u>L6</u>
<u>L5</u>	L4 and (repair or generating or damaged)	610	<u>L5</u>
<u>L4</u>	L3 and (mobilization or mobilized)	750	<u>L4</u>
<u>L3</u>	L2 and (stem adj cell)	3834	<u>L3</u>
<u>L2</u>	(heart or myocardium or myocardial) and (cytokine or SCF)	10890	<u>L2</u>
<u>L1</u>	Anversa-piero.in.	3	<u>L1</u>

END OF SEARCH HISTORY

**WEST****Freeform Search****Database:**

US Patents Full-Text Database  
 US Pre-Grant Publication Full-Text Database  
 JPO Abstracts Database  
 EPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

**Term:**
**Display:**  **Documents in Display Format:**  **Starting with Number** 
**Generate:** ☐ Hit List ☒ Hit Count ☐ Side by Side ☐ Image

Search

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Main Menu

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Cases

**Search History**
**DATE:** Tuesday, June 10, 2003    [Printable Copy](#)    [Create Case](#)
Set Name  
 side by side
Query
Hit Count    Set Name  
                     result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE;  
 PLUR=YES; OP=AND*

<u>L11</u>	L9 and (endothelial adj progenitor)	4	<u>L11</u>
<u>L10</u>	Ashahara-T\$.in.	0	<u>L10</u>
<u>L9</u>	Isner-J\$-M\$.in.	44	<u>L9</u>
<u>L8</u>	5,880,090.pn.	2	<u>L8</u>
<u>L7</u>	L6 and (infarcted or ischemic)	119	<u>L7</u>
<u>L6</u>	L5 and (heart or myocardium or myocyte)	164	<u>L6</u>
<u>L5</u>	L4 and (stem adj cell)	213	<u>L5</u>
<u>L4</u>	(SCF) and (mobilization and CD34)	214	<u>L4</u>
<u>L3</u>	L1 not L2	18	<u>L3</u>
<u>L2</u>	L1 and (heart or myocardium or myocyte)	28	<u>L2</u>
<u>L1</u>	(SCF) and (mobilization and HSC)	46	<u>L1</u>

### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)  
Trying 3106000009999...Open

DIALOG INFORMATION SERVICES

PLEASE LOGON:

\*\*\*\*\* HHHHHHHH SSSSSSSS?

### Status: Signing onto Dialog

\*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\* HHHHHHHH SSSSSSSS? \*\*\*\*\*

Welcome to DIALOG

### Status: Connected

Dialog level 02.15.02D

Last logoff: 09jun03 09:43:43

Logon file001 10jun03 12:35:08

\*\*\* ANNOUNCEMENT \*\*\*

\*\*\*

--File 581 - The 2003 annual reload of Population Demographics is complete. Please see Help News581 for details.

\*\*\*

--File 156 - The 2003 annual reload of ToxFile is complete. Please see HELP NEWS156 for details.

\*\*\*

--File 990 - NewsRoom now contains February 2003 to current records.  
File 992 - NewsRoom 2003 archive has been newly created and contains records from January 2003. The oldest months's records roll out of File 990 and into File 992 on the first weekend of each month.  
To search all 2003 records BEGIN 990, 992, or B NEWS2003, a new OneSearch category.

\*\*\*

--Connect Time joins DialUnits as pricing options on Dialog.  
See HELP CONNECT for information.

\*\*\*

--CLAIMS/US Patents (Files 340,341, 942) have been enhanced with both application and grant publication level in a single record. See HELP NEWS 340 for information.

\*\*\*

--SourceOne patents are now delivered to your email inbox as PDF replacing TIFF delivery. See HELP SOURCE1 for more information.

\*\*\*

--Important news for public and academic libraries. See HELP LIBRARY for more information.

\*\*\*

--Important Notice to Freelance Authors--  
See HELP FREELANCE for more information

\*\*\*

NEW FILES RELEASED

\*\*\*World News Connection (File 985)  
\*\*\*Dialog NewsRoom - 2003 Archive (File 992)  
\*\*\*TRADEMARKSCAN-Czech Republic (File 680)  
\*\*\*TRADEMARKSCAN-Hungary (File 681)  
\*\*\*TRADEMARKSCAN-Poland (File 682)

\*\*\*

UPDATING RESUMED

\*\*\*

RELOADED

\*\*\*Population Demographics - (File 581)  
\*\*\*CLAIMS Citation (Files 220-222)

REMOVED

\*\*\*U.S. Patents Fulltext 1980-1989 (File 653)

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<  
>>> of new databases, price changes, etc. <<<  
\*\*\*\*\*

KWIC is set to 50.

HIGHLIGHT set on as '\*'

\* \* \* \* See HELP NEWS 225 for information on new search prefixes  
and display codes

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File 1:ERIC 1966-2003/May 27  
(c) format only 2003 The Dialog Corporation

Set	Items	Description
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Cost is in DialUnits

?b 155, 5, 73

10jun03 12:35:21 User259876 Session D512.1

\$0.32 0.090 DialUnits File1

\$0.32 Estimated cost File1

\$0.04 TELNET

\$0.36 Estimated cost this search

\$0.36 Estimated total session cost 0.090 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1966-2003/Jun W1

(c) format only 2003 The Dialog Corp.

**\*File 155: Medline has been reloaded and accession numbers have  
changed. Please see HELP NEWS 155.**

File 5:Biosis Previews(R) 1969-2003/Jun W1

(c) 2003 BIOSIS

**\*File 5: Alert feature enhanced for multiple files, duplicates  
removal, customized scheduling. See HELP ALERT.**

File 73:EMBASE 1974-2003/Jun W1

(c) 2003 Elsevier Science B.V.

**\*File 73: Alert feature enhanced for multiple files, duplicates  
removal, customized scheduling. See HELP ALERT.**

Set	Items	Description
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?s (heart or myocardium or myocardial) (s) (cytokine or SCF)

1662740 HEART

193499 MYOCARDIUM

493132 MYOCARDIAL

213301 CYTOKINE

8401 SCF

S1 3506 (HEART OR MYOCARDIUM OR MYOCARDIAL) (S) (CYTOKINE OR SCF)

?s s1 (s) (stem (w) cell?)

Processing

Processing

Processing

3506 S1

308808 STEM

7820168 CELL?

S2 52 S1 (S) (STEM (W) CELL?)

?s s2 and (mobilization or mobilized)

52 S2

71051 MOBILIZATION

16139 MOBILIZED

S3 13 S2 AND (MOBILIZATION OR MOBILIZED)

?rd

...completed examining records  
S4 9 RD (unique items)  
?t s4/3,k/all

4/3,K/1 (Item 1 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

14907338 22654974 PMID: 12769752

**Pleiotropic Effects of Cytokines on Acute Myocardial Infarction: G-CSF as A Novel Therapy for Acute Myocardial Infarction.**

Takano Hiroyuki; Ohtsuka Masashi; Akazawa Hiroshi; Toko Haruhiro; Harada Mutsuo; Hasegawa Hiroshi; Nagai Toshio; Komuro Issei

Department of Cardiovascular Science and Medicine, Chiba University Graduate School of Medicine, 1-8-1 Inohana, Chuo-ku, Chiba 260-8670, Japan.  
komuro-tky@umin.ac.jp

Current pharmaceutical design (Netherlands) 2003, 9 (14) p1121-7,  
ISSN 1381-6128 Journal Code: 9602487

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

Many cytokines have been reported to be increased in human and animal models with cardiovascular diseases. \*Myocardial\* infarction (MI) is accompanied with an inflammatory reaction which induces cardiac dysfunction and remodeling. The inflammatory reaction has been investigated in animal models of MI or \*myocardial\* ischemia-reperfusion injury. The mechanisms by which \*cytokine\* cascade is activated in the infarcted \*myocardium\* have been recently elucidated. Several hematopoietic growth factors including interleukin-3 (IL-3), IL-6, granulocyte-macrophage colony-stimulating factors (GM-CSF), granulocyte colony-stimulating factor (G-CSF), and \*stem\* \*cell\* factor (\*SCF\*) have been reported to be positive regulators of granulopoiesis and act at different stages of myeloid cell development. G-CSF plays a critical role in regulation of proliferation, differentiation, and survival of myeloid progenitor cells. G-CSF also causes a marked increase in the release of hematopoietic \*stem\* \*cells\* (HSCs) into the peripheral blood circulation, a process termed \*mobilization\*. Although cardiac myocytes have been considered as terminally differentiated cells, it has been recently reported that there are many proliferating cardiac myocytes after MI in human \*heart\*. After it was demonstrated that bone marrow \*stem\* \*cells\* (BMSCs) can differentiate into cardiac myocytes, \*myocardial\* regeneration has been widely investigated. Recently, G-CSF has been reported to improve cardiac function and reduces mortality after acute MI. Although the mechanism by which G-CSF ameliorates cardiac dysfunction is not fully understood, there is the possibility that G-CSF may regenerate cardiac myocytes and blood vessels through \*mobilization\* of BMSCs. In the future, \*cytokine\* -mediated regeneration therapy may become to be a novel therapeutic strategy for MI.

4/3,K/2 (Item 2 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

14638028 22189334 PMID: 12201361

**Normal donor bone marrow is superior to Flt3 ligand-\*mobilized\* bone marrow in prolonging heart allograft survival when combined with anti-CD40L (CD154).**

Hackstein Holger; Wang Zhiliang; Morelli Adrian E; Kaneko Katsuhiko; Takayama Takuya; Colvin Bridget L; Bein Gregor; Thomson Angus W

American journal of transplantation - official journal of the American Society of Transplantation and the American Society of Transplant Surgeons (Denmark) Aug 2002, 2 (7) p609-17, ISSN 1600-6135 Journal Code: 100968638

Contract/Grant No.: 1R21 HL69725-01; HL; NHLBI; R01AI41011; AI; NIAID; R01DK 49745; DK; NIDDK

Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed

**Normal donor bone marrow is superior to Flt3 ligand-\*mobilized\* bone marrow in prolonging heart allograft survival when combined with anti-CD40L (CD154).**

Flt3 ligand (FL) administration markedly increases bone marrow (BM) \*stem\* \*cells\* and immature dendritic cells. We investigated the influence of CD40-CD40Ligand (CD154) pathway blockade on antidonor immunity, \*cytokine\* production, microchimerism and \*heart\* graft survival in BALB/c (H2d) recipients of fully allogeneic C57BL/10 (H2b) FL-\*mobilized\* BM (FL-BM) or normal BM. Anti-CD40L mAb strongly suppressed anti-donor T-cell proliferative responses in recipients of either normal or FL-BM...

... activity, especially in recipients of FL-BM. Interestingly, CD40L blockade was more effective in recipients of multiple compared with single donor BM infusions. Anti-donor \*cytokine\* responses revealed complete impairment of IFN-gamma, IL-4 and IL-10 production in recipients of normal BM and CD40L mAb. By contrast, and in...

... produce IFN-gamma CD40-CD40L blockade did not promote microchimerism, as evidenced by immunohistology and real time polymerase chain reaction. Nevertheless, anti-CD40L mAb enhanced \*heart\* allograft survival in recipients of FL-BM, but the effect was inferior to that achieved with normal BM. These data provide insight into the influence...

4/3,K/3 (Item 3 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

14035091 22317934 PMID: 12430844

**Stem cell repair in ischemic heart disease: an experimental model.**

Orlic Donald; et al

National Human Genome Research Institute/NIH, Bethesda, MD, USA.

International journal of hematology (Ireland) Aug 2002, 76 Suppl 1  
p144-5, ISSN 0925-5710 Journal Code: 9111627

~~Document type: Journal Article~~

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

Bone marrow \*stem\* \*cells\* (BMSC) from adult mice are now believed to generate non-hematopoietic cell types. This newly defined property is referred to as \*stem\* \*cell\* plasticity. We tested the potential of lineage negative c-kit positive (Lin- c-kit+), GFP+ BMSC to differentiate into cardiac myocytes in \*myocardial\* infarcts produced by ligation of the left coronary artery. At 9 days post-transplant the hearts showed a band of developing GFP+ myocytes within the damaged \*myocardium\*. These GFP+ myocytes were positive for cardiac specific myosin and early expressed transcription factors. Endothelial cells and smooth muscle cells also developed from the donor bone marrow cells. Left ventricular end diastolic pressure (LVEDP) and left ventricular developed pressure (LVDP) were improved. Lin-c- kit- cells did not regenerate \*myocardium\*. We next tested the ability of \*cytokine\*-\*mobilized\* BMSC to regenerate \*myocardium\*. Nuclei in regenerating cardiomyocytes were positive for Csx/Nkx 2.5, GATA-4 and MEF2. Cytoplasmic proteins included desmin, nestin and connexin 43. Regenerating arterioles...

... of endothelial cells and smooth muscle cells positive for Ki67, and flkl. These regenerating vessels contained circulating TER119 positive red blood cells. Repair of infarcted \*myocardium\* resulted in improved \*heart\* function and survival. At day 27 after \*cytokine\* treatment and surgery, 11 of 15 mice survived compared with 9 of 52 non-treated mice. Left ventricular ejection fraction in infarcted hearts in \*cytokine\*-treated

mice was 48%, 62% and 114% higher than the ejection fraction in non-treated mice at 9, 16 and 26 days following coronary artery occlusion. These findings demonstrate that circulating autologous \*stem\* \*cells\* traffic to the ischemic, infarcted \*myocardium\* and undergo differentiation into cardiomyocytes and vascular structures. We conclude that adult BMSC have the potential for repair in acute, ischemic \*heart\* disease.

4/3,K/4 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

09631389 21417718 PMID: 11504914

**\*Mobilized\* bone marrow cells repair the infarcted heart, improving function and survival.**

Orlic D; Kajstura J; Chimenti S; Limana F; Jakoniuk I; Quaini F; Nadal-Ginard B; Bodine D M; Leri A; Anversa P

Cardiovascular Research Institute, Department of Medicine, New York Medical College, Valhalla, NY 10595, USA.

Proceedings of the National Academy of Sciences of the United States of America (United States) Aug 28 2001; 98 (18): p10344-9, ISSN 0027-8424  
Journal Code: 7505876

Contract/Grant No.: AG-15756; AG; NIA; AG-17042; AG; NIA; HL-38132; HL; NHLBI; HL-39902; HL; NHLBI; HL-43023; HL; NHLBI; HL-65577; HL; NHLBI; HL-66923; HL; NHLBI

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

**\*Mobilized\* bone marrow cells repair the infarcted heart, improving function and survival.**

... be required for the transdifferentiation of primitive BMC: tissue damage and a high level of pluripotent cells. On this basis, we hypothesized here that BMC, \*mobilized\* by \*stem\* \*cell\* factor and granulocyte-colony stimulating factor, would home to the infarcted region, replicate, differentiate, and ultimately promote \*myocardial\* repair. We report that, in the presence of an acute \*myocardial\* infarct, \*cytokine\*-mediated translocation of BMC resulted in a significant degree of tissue regeneration 27 days later. \*Cytokine\*-induced cardiac repair decreased mortality by 68%, infarct size by 40%, cavitory dilation by 26%, and diastolic stress by 70%. Ejection fraction progressively increased and...

... consequence of the formation of  $15 \times 10^6$  new myocytes with arterioles and capillaries connected with the circulation of the unaffected ventricle. In conclusion, \*mobilization\* of primitive BMC by cytokines might offer a noninvasive therapeutic strategy for the regeneration of the \*myocardium\* lost as a result of ischemic \*heart\* disease and, perhaps, other forms of cardiac pathology.

; Cell Differentiation; Cell Division; Granulocyte Colony-Stimulating Factor--pharmacology--PD; Heart Ventricle--pathology--PA; Heart Ventricle--physiopathology--PP; Hematopoietic Stem Cell \*Mobilization\*--methods--MT; Mice; Mice, Inbred C57BL; Myocardial Infarction--pathology--PA; Myocardial Infarction--physiopathology--PP; Regeneration; Stem Cell Factor--pharmacology--PD; Transplantation, Isogeneic

4/3,K/5 (Item 5 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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09024997 20318720 PMID: 10861056

**Microchimerism, donor dendritic cells, and alloimmune reactivity in recipients of Flt3 ligand-\*mobilized\* hemopoietic cells: modulation by tacrolimus.**

Morelli A E; Antonysamy M A; Takayama T; Hackstein H; Chen Z; Qian S; Zurowski N B; Thomson A W

Thomas E. Starzl Transplantation Institute and Department of Surgery,  
University of Pittsburgh, PA 15213, USA.

Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Jul 1  
2000. 165 (1) p226-37. ISSN 0022-1767 Journal Code: 2985117R

~~Contract~~/Grant No.: AI141011; AI; NIAID; DK49745; DK; NIDDK

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

**Microchimerism, donor dendritic cells, and alloimmune reactivity in recipients of Flt3 ligand-\*mobilized\* hemopoietic cells: modulation by tacrolimus.**

Flt3 ligand (FL) is a potent hemopoietic growth factor that strikingly enhances \*stem\* \*cells\* and dendritic cells (DC) in vivo. We examined the impact of infusing FL-\*mobilized\* bone marrow (BM) cells on microchimerism and anti-donor reactivity in normal and tacrolimus-immunosuppressed, noncytoablated allogeneic recipients. BM from B10 (H2b) mice given FL...

... spleens of FL-BM recipients. Tacrolimus markedly enhanced microchimerism, which declined as a function of time. Ex vivo splenocyte proliferative and CTL responses and Th1 \*cytokine\* (IFN-gamma) production in response to donor alloantigens were augmented by FL-BM infusion, but reduced by tacrolimus. Systemic infusion of purified FL-BM immature...

... from FL-BM without affecting MHC class II or costimulatory molecule expression. Infusion of normal B10 BM cells at the time of transplant prolonged C3H \*heart\* allograft survival, whereas FL-BM cells did not. A therapeutic effect of tacrolimus on graft survival was observed in combination with normal, but not FL...

Descriptors: Adjuvants, Immunologic--pharmacology--PD; \*Dendritic Cells --transplantation--TR; \*Hematopoietic Stem Cell \*Mobilization\*; \*Hematopoietic Stem Cell Transplantation; \*Isoantigens--immunology--IM; \*Membrane Proteins--immunology--IM; \*Radiation Chimera--immunology--IM; \*Tacrolimus--pharmacology--PD

4/3,K/6 (Item 1 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

13632883 BIOSIS NO.: 200200261704

**High dose intravenous melphalan and autologous stem cell transplantation for the treatment of AL amyloidosis: Morbidity and mortality.**

AUTHOR: Sanchrawala Vaishali(a); Taper John(a); Seldin David C(a); Falk Rodney H(a); Dember Laura(a); Berk John(a); Finn Kathleen(a); Quillen Karen(a); Skinner Martha(a); Wright Daniel G(a)

AUTHOR ADDRESS: (a) Boston University Medical Center, Boston, MA\*\*USA

JOURNAL: Blood 98 (11 Part 1):p860a November 16, 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of Hematology, Part 1 Orlando, Florida, USA December 07-11, 2001

ISSN: 0006-4971

RECORD TYPE: Abstract

LANGUAGE: English

...ABSTRACT: by widespread, progressive amyloid deposition leading to multisystem organ failure and death. Aggressive treatment of AL amyloidosis with high dose intravenous melphalan followed by autologous \*stem\* \*cell\* transplant (HDM/SCT) is effective in inducing hematologic and clinical remissions and in extending survival. However, in our experience HDM/SCT is a challenging and toxic treatment for AL amyloidosis patients, given their multisystem disease. Morbidity and mortality is associated with all phases of HDM/SCT: during \*stem\* \*cell\* \*mobilization\* and collection, during post-treatment myelosuppression, and following hematopoietic engraftment. Between 6/94 and 3/01, 250 patients with AL amyloidosis, (median age=57, range...



...53% had echocardiographic evidence of cardiac involvement. Overall mortality during the 3-month peri-transplant period was 14%. Of the 250 patients who began the \*stem\* \*cell\* \*mobilization\* and collection phase of treatment, 27 (11%) did not proceed to HDM/SCT, either because of death (4%) or major toxicities (7%). Deaths were associated with sudden cardiac arrest or irreversible congestive \*heart\* failure in 5 patients during \*stem\* \*cell\* \*mobilization\* with high dose G-\*SCF\*, or during or soon after apheresis for \*stem\* \*cell\* collection in 3 cases. Other causes of death included mesenteric vein thrombosis with sepsis and massive GI bleeding. Major morbidity occurred in 23 patients during \*stem\* \*cell\* \*mobilization\* and collection; of these 18 did not proceed to HDM/SCT. Morbid events included hypotension and/or arrhythmias during apheresis, catheter-related thromboses, GI bleeding, femoral artery embolus, and Klebsiella bacteremia. Sixteen deaths occurred during the \*stem\* \*cell\* transplant phase of treatment, primarily from cardiac events. There were 4 cardiac arrests leading to death during \*stem\* \*cell\* infusion, and 6 during the following 4 weeks. Other lethal events were GI perforation or hemorrhage and sepsis. During \*stem\* \*cell\* infusions, significant bradycardia and/or hypotension occurred in 8 patients, and 1 patient subsequently suffered an embolic CVA. As expected, the principal morbidity during the...  
...METHODS & EQUIPMENT: stem cell \*mobilization\*--

4/3,K/7 (Item 2 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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13632681 BIOSIS NO.: 200200261502

**\*Cytokine\*-\*mobilized\* \*stem\* \*cells\* traffic to infarcted hearts and regenerate functional \*myocardium\* resulting in improved survival.**

AUTHOR: Orlic Donald(a); Kajstura Jan; Chimenti Stefano; Limana Federica; Jakoniuk Igor; Quaini Federico; Nadal-Ginard Bernardo; Cline Amanda(a); Leri Annarosa; Bodine David(a); Anversa Piero  
AUTHOR ADDRESS: (a)-National Human Genome Research Institute, NIH, Bethesda, MD\*\*USA

JOURNAL: Blood 98 (11 Part 1):p810a November 16, 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of Hematology, Part 1 Orlando, Florida, USA December 07-11, 2001

ISSN: 0006-4971

RECORD TYPE: Abstract

LANGUAGE: English

**\*Cytokine\*-\*mobilized\* \*stem\* \*cells\* traffic to infarcted hearts and regenerate functional \*myocardium\* resulting in improved survival.**

ABSTRACT: We recently demonstrated that LinNEG c-kitPOS bone marrow \*stem\* \*cells\* (BMSC) from adult mice injected into the healthy \*heart\* tissue bordering an infarcted area regenerate \*myocardium\* and improve the hemodynamic function of the damaged \*heart\* (Orlic et al., Nature 2001). We have previously shown that 5 daily injections of peg-\*stem\* \*cell\* factor (rrSCF, 50 mug/kg/day) and granulocyte-colony stimulating factor (rhG-CSF, 200 mug/kg) resulted in a 250-fold increase in the absolute number of BMSC in the peripheral blood. In mice given an infarct during the period of \*cytokine\* injections, \*mobilized\* BMSC promoted repair of the \*myocardial\* infarct. At 27 days post-infarction, \*mobilized\* BMSC-mediated repair resulted in 73% survival (11 of 15 mice) versus 17% survival (9 of 52 mice) in non-treated controls. The regenerating \*myocardium\* occupied 76+-11% of the infarct area consisting of 61+-12% new myocytes, 12+-5% new arterioles and capillaries and 3+-2% other components for...

...endothelial cells and 2.2-fold higher than vascular smooth muscle cells. Circulating red cells in developing arterioles suggested continuity with vessels in the spared \*myocardium\*. Cardiac ejection fraction was 48%,

62% and 114% higher in cytokine\*-treated mice compared with controls at days 9, 16 and 26. We hypothesized that the regenerating cardiac myocytes and blood vessels were derived from \*mobilized\* hematopoietic \*stem\* \*cells\* (HSC) and not bone marrow stromal or mesenchymal \*stem\* \*cells\* or endothelial cell precursors. Since enrichment procedures cannot provide pure HSC populations, we proposed that gene marking represents the best approach to determine whether the HSC that give rise to blood cells are the same cells that regenerate infarcted \*myocardium\*. To test this hypothesis we reconstituted adult mouse bone marrow with HSC transduced with a retrovirus vector containing the gene encoding green fluorescent protein (GFP...

...Mac-1, B220 and TER-119 positive blood cells expressed GFP. On day 5 of an 8-day period of rrSCF and rhG-CSF-induced \*mobilization\* of BMSC into the peripheral blood, we ligated the coronary artery and 9 days later harvested healthy and infarcted \*myocardium\* for analysis by PCR. Southern blot analysis of bone marrow, spleen and thymus DNA revealed 5 to 7 proviral inserts common to all hematopoietic cells indicating transduction of HSC. The GFP sequence was present in the regenerating infarcted region but not in healthy \*myocardium\*. These data indicate that regenerating cells in the \*heart\* were derived from the original transduced bone marrow cells. We are currently using inverse PCR to isolate DNA clones and determine whether the same insertion sites are present in hematopoietic and regenerating \*myocardial\* cells. We conclude that \*mobilized\* BMSC may provide a therapeutic strategy for repair of infarcted \*myocardium\*.

4/3,K/8 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13569983 BIOSIS NO.: 200200198804

**Phenotypic and functional characterization of a novel adult multipotential CD34- stem cell subset from \*mobilized\* peripheral blood.**

AUTHOR: Kuci Selim(a); Wessels Johannes T(a); Loeffler Juergen; Kammler Meike(a); Seitz Gabriele; Buhning Hans-Joerg; Schlegel Paul-Gerhard(a); Handgretinger Rupert; Nethammer-Dietrich(a)

AUTHOR ADDRESS: (a)Hematology/Oncology, University-Children's Hospital, Tuebingen\*\*Germany

JOURNAL: Blood 98 (11 Part 1):p276a November 16, 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of Hematology, Part 1 Orlando, Florida, USA December 07-11, 2001

ISSN: 0006-4971

RECORD TYPE: Abstract

LANGUAGE: English

**Phenotypic and functional characterization of a novel adult multipotential CD34- stem cell subset from \*mobilized\* peripheral blood.**

...ABSTRACT: culture with FLT3 ligand (FL)) and interleukin-6 (IL-6) for 3-5 weeks. These cells showed a distinct morphology and were negative for hematopoietic \*stem\* \*cell\* markers. However, only protoplasmatic protrusions of these cells expressed CD133. After stimulation with \*stem\* \*cell\* factor (\*SCF\*) these cells entered the cell cycle and gave rise to the nonadherent CD34- cells that contained a \*stem\*-\*cell\* subset expressing CD133. Nonadherent CD34- cells did not show any in vitro clonogenic activity (no CFU-C or CAFCs generated). However, transplantation of these cells...

...our preliminary studies by using PCR-ELISA and immunostainings with tissue-specific monoclonal antibodies showed the presence of human cells in the liver, lungs, brain, \*heart\*, gut and striated muscle. This indicated that the transplanted nonadherent CD34- cells can repopulate these organs and have the capacity to differentiate into the tissues of mesodermal, ectodermal and endodermal origin. In conclusion, these cells

might represent an adult pluripotent \*stem\* \*cell\* subse with multiple differentiation capabilities.

DESCRIPTORS:

...ORGANISMS: PARTS ETC: blood and lymphatics, \*mobilization\*;

4/3,K/9 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

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11999962 EMBASE No: 2003111001

**Normal donor bone marrow is superior to FltSUB3 ligand-\*mobilized\* bone marrow in prolonging heart allograft survival when combined with anti-CD401 (CD154)**

Hackstein H.; Wang Z.; Morelli A.E.; Kaneko K.; Takayama T.; Colvin B.L.; Bein G.; Thomson A.W.

Dr. A.W. Thomson, Thomas E. Starzl Transplant. Inst., Department of Molecular Genetics, University of Pittsburgh, Pittsburgh, PA 15213 United States

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American Journal of Transplantation ( AM. J. TRANSPLANT. ) (Denmark)

2002, 2/7 (609-617)

CODEN: AJTMB ISSN: 1600-6135

DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 45

**Normal donor bone marrow is superior to FltSUB3 ligand-\*mobilized\* bone marrow in prolonging heart allograft survival when combined with anti-CD401 (CD154)**

Flt3 ligand (FL) administration markedly increases bone marrow (BM) \*stem\* \*cells\* and immature dendritic cells. We investigated the influence of CD40-CD40L-gand (CD154) pathway blockade on antidonor immunity, \*cytokine\* production, microchimerism and \*heart\* graft survival in BALB/c (H2SUPd) recipients of fully allogeneic C57BL/10 (H2SUPb) FL-\*mobilized\* BM (FL-BM) or normal BM. Anti-CD40L mAb strongly suppressed antidonor T-cell proliferative responses in recipients of either normal or FL-BM, but...

...activity, especially in recipients of FL-BM. Interestingly, CD40L blockade was more effective in recipients of multiple compared with single donor BM infusions. Anti-donor \*cytokine\* responses revealed complete impairment of IFN-gamma, IL-4 and IL-10 production in recipients of normal BM and CD40L mAb. By contrast, and in...

...produce IFN-gamma CD40-CD40L blockade did not promote microchimerism, as evidenced by immunohistology and real time polymerase chain reaction. Nevertheless, anti-CD40L mAb enhanced \*heart\* allograft survival in recipients of FL-BM, but the effect was inferior to that achieved with normal BM. These data provide insight into the influence...

?rd

...completed examining records

S5 9 RD (unique items)

?ds

Set	Items	Description
S1	3506	(HEART OR MYOCARDIUM OR MYOCARDIAL) (S) (CYTOKINE OR SCF)
S2	52	S1 (S) (STEM (W) CELL?)
S3	13	S2 AND (MOBILIZATION OR MOBILIZED)
S4	9	RD (unique items)
S5	9	RD (unique items)
?s s2 and (repair or regenerate or generate or damaged)		
	52	S2
	248622	REPAIR
	11630	REGENERATE
	121144	GENERATE
	78274	DAMAGED
S6	9	S2 AND (REPAIR OR REGENERATE OR GENERATE OR DAMAGED)

```
?rd
...completed examining records
      S7      5  RD (unique items)
?s s7 not s4
          5  S7
          9  S4
      S8      1  S7 NOT S4
?t s8/3,k/all
```

8/3,K/1 (Item 1 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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14709800 22584337 PMID: 12663857

**Recombinant human erythropoietin protects the myocardium from ischemia-reperfusion injury and promotes beneficial remodeling.**

Calvillo Laura; Latini Roberto; Kajstura Jan; Leri Annarosa; Anversa Piero; Ghezzi Pietro; Salio Monica; Cerami Anthony; Brines Michael

Mario Negri Institute of Pharmacological Research, 20157 Milan, Italy.

Proceedings of the National Academy of Sciences of the United States of America (United States) 03 27 2003, 100 (8) p4802-6, ISSN 0027-8424

Journal Code: 7505876

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

Erythropoietin (EPO), originally identified for its critical hormonal role in promoting erythrocyte survival and differentiation, is a member of the large and diverse \*cytokine\* superfamily. Recent studies have identified multiple paracrine/autocrine functions of EPO that coordinate local responses to injury by maintaining vascular autoregulation and attenuating both primary (apoptotic) and secondary (inflammatory) causes of cell death. Experimental evidence also supports a role for EPO in \*repair\* and regeneration after brain and spinal cord injury, including the recruitment of \*stem\* \*cells\* into the region of damage. Tissue expression of the EPO receptor is widespread, especially during development, and includes the \*heart\*. However, it is currently unknown as to whether EPO plays a physiological function in adult \*myocardial\* tissue. We have assessed the potential protective role of EPO in vitro with adult rat cardiomyocytes, and in vivo in a rat model of \*myocardial\* infarction with reperfusion. The results show that EPO markedly prevents the apoptosis of cultured adult rat myocardiocytes subjected to 28 h of hypoxia (approximately 3...

... normalize hemodynamic function within 1 week after reperfusion. These observations not only suggest a potential therapeutic role for recombinant human EPO in the treatment of \*myocardial\* ischemia and infarction by preventing apoptosis and attenuating postinfarct deterioration in hemodynamic function, but also predict that EPO is likely a tissue-protective \*cytokine\* in other organs as well.

?ds

Set	Items	Description
S1	3506	(HEART OR MYOCARDIUM OR MYOCARDIAL) (S) (CYTOKINE OR SCF)
S2	52	S1 (S) (STEM (W) CELL?)
S3	13	S2 AND (MOBILIZATION OR MOBILIZED)
S4	9	RD (unique items)
S5	9	RD (unique items)
S6	9	S2 AND (REPAIR OR REGENERATE OR GENERATE OR DAMAGED)
S7	5	RD (unique items)
S8	1	S7 NOT S4
?s s1 and (mobilization or mobilized)		
	3506	S1
	71051	MOBILIZATION
	16139	MOBILIZED
S9	36	S1 AND (MOBILIZATION OR MOBILIZED)

?rd

...completed examining records

S10 24 RD (unique items)

?s s10 not s4

24 S10

9 S4

S11 15 S10 NOT S4

?t s11/3,k/all

11/3,K/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14855579 22276710 PMID: 12389080

**Upregulation of intragraft interleukin-10 by infusion of granulocyte colony-stimulating factor-\*mobilized\* donor leukocytes.**

Egi Hiroyuki; Hayamizu Keisuke; Ohmori Ichiro; Kitayama Teruhiko; Asahara Toshimasa

Department of Surgery II, Hiroshima University Faculty of Medicine, 1-2-3 Kasumi, Minami-ku, Japan.

Transplant international - official journal of the European Society for Organ Transplantation (Germany) 09 24 2002, 15 (9-10) p479-85, ISSN 0934-0874 Journal Code: 8908516

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

**Upregulation of intragraft interleukin-10 by infusion of granulocyte colony-stimulating factor-\*mobilized\* donor leukocytes.**

We examined the effects of granulocyte colony-stimulating factor (G-CSF)-\*mobilized\* donor leukocyte infusion (G-DLI) on facilitation of allograft survival using \*heart\* transplantation from DA to Lewis rats that were transiently treated with tacrolimus (2 mg/kg i.m. on day 0). Other DA rats were given G-CSF (250 microg/kg/day s.c. from days -5 to 0), and isolated leukocytes were infused into Lewis recipients after surgery. \*Cytokine\* mRNA levels were quantified by reverse transcription and real-time polymerase chain reaction. After G-CSF treatment, leukocytes in circulation increased by 7.6 times...

... DLI facilitated graft survival dose-dependently. Significant IL-10 mRNA upregulation was detected in grafts 24 h after surgery but not in the recipient's \*heart\*, spleen, or liver. On day 6, IFN-gamma and IL-2 mRNA levels were approximately half those of the control levels. Allograft-restricted IL-10 upregulation followed by type-1 \*cytokine\* downregulation can be achieved by the use of G-DLI.

; Cytokines--genetics--GE; Hematopoietic Stem Cell \*Mobilization\*; Leukocytes--drug effects--DE; Rats; Rats, Inbred Lew; Th1 Cells--immunology --IM; Time Factors; Transcription, Genetic; Transplantation, Homologous

11/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14140250 22312830 PMID: 12425207

**[Role of cytokines in the development of local and systemic inflammation and septic shock]**

Uloha cytokinov v rozvoji lokalneho a systemoveho zapalu a septickeho soku.

Bucova M; et al

Imunologicky ustav Lekarskej fakulty Univerzity Komenskeho, Bratislava, Slovenska republika.

Vnitřni lékařství (Czech Republic) Aug 2002, 48 (8) p755-62, ISSN 0042-773X Journal Code: 0413602

Document type: Journal Article; Review; Review, Tutorial ; English Abstract

Languages: SLOVAK  
Main Citation Owner: NLM  
Record type: Completed

... by activation of the vascular endothelium and monocyte- macrophage system. Both are associated with the formation of inflammatory cytokines, the primary mission of which is *\*mobilization\** of the organism to cope with the infection. The so-called acute stage response develops with typical clinical manifestations and laboratory values. When it is...

...system can be highly toxic for the organism and can lead to the syndrome of multiorgan failure, to disseminated intravascular coagulation, to depression of the *\*myocardium\**, refractory vasodilatation, hypertension and septic shock. The compensatory antagonistic mechanism which develops due to the formation of anti-inflammatory cytokines leads sometimes to the development...

... which is most favourable from the prognostic aspect. In case of their excess however immunodepression develops which is equally dangerous for the patient as excessive *\*cytokine\** activity. From what has been said ensues the need of regular monitoring of patients with sepsis and thus also detailed investigation of their immune system.

11/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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11367522 98248236 PMID: 9588822

***\*Heart\* EC respond heterogeneous on \*cytokine\* stimulation in ICAM-1 and VCAM-1, but not in MHC expression. A study with 3 rat \*heart\* endothelial cell (RHEC) lines.***

Derhaag J G; Duijvestijn A M; Van Breda Vriesman P J  
Department of Immunology, Cardiovascular Research Institute Maastricht, Maastricht University, The Netherlands.

Endothelium - journal of endothelial cell research (SWITZERLAND) 1997, 5 (4) p307-19, ISSN 1062-3329 Journal Code: 9412590

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

***\*Heart\* EC respond heterogeneous on \*cytokine\* stimulation in ICAM-1 and VCAM-1, but not in MHC expression. A study with 3 rat \*heart\* endothelial cell (RHEC) lines.***

*\*Cytokine\** -induced expression of ICAM-1, VCAM-1, and MHC class I and II was studied at different time points in microvascular endothelial cells (EC) of *\*heart\** origin, using three different rat endothelial cell (RHEC) lines that were stimulated with TNFalpha and/or IFNgamma. Each of the three RHEC lines responded to...

... ICAM-1, but strong induction of VCAM-1. For P-selectin induction, no such differences were found between the RHEC lines. These heterogeneous effects of *\*cytokine\** stimulation could neither be explained by differences in *\*mobilization\** of calcium nor by ultra-structural differences between the lines. Stimulation of the RHEC lines for ICAM-1 and VCAM-1 or MHC class II...

... results from intrinsic regulation mechanisms in the cell cultures, and not from the presence of particular EC subpopulations within the lines. We conclude that microvascular *\*heart\** endothelial cells, as represented by the 3 RHEC lines, demonstrate a selective heterogeneity in expression of ICAM-1 and VCAM-1, but not of MHC class I and II, upon *\*cytokine\** stimulation. The consequences of this heterogeneity for leukocyte-endothelial cell interactions in *\*heart\** inflammation and immune reactivity is discussed.

11/3,K/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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11152549 98028530 PMID: 9363900

**Molecular and cellular biology of mast cells and basophils.**

Marone G; Casolaro V; Patella V; Florio G; Triggiani M

Division of Clinical Immunology and Allergy, University of Naples Federico II, Italy.

International archives of allergy and immunology (SWITZERLAND) Nov 1997

, 114 (3) p207-17, ISSN 1018-2438 Journal Code: 9211652

Contract/Grant No.: AI 41463-01; AI; NIAID

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

...expression in human Fc epsilonRI+ cells. Some of these studies imply a role for NFAT and GATA family members in the IgE-mediated activation of \*cytokine\* gene transcription in basophils and mast cells. Studies of human basophils and mast cells isolated from different anatomic sites have established the different profiles of eicosanoids released by these cells. Recently, the characterization of arachidonic acid pools and the identification of novel enzymes involved in arachidonate remodeling and \*mobilization\* clarified in part how eicosanoid productions is regulated in mast cells and basophils. In addition to histamine, human mast cell secretory granules contain the neutral...

... particular, tryptase may play a role as a fibrogenic factor and chymase might convert angiotensin I to angiotensin II. Mast cells are present in human \*heart\* and in human coronary arteries raising the possibility that local activation of cardiac mast cells might contribute to certain cardiovascular diseases. Recent evidence also suggests...

11/3,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10924239 97276423 PMID: 9130176

**Exercise-induced increase in serum interleukin-6 in humans is related to muscle damage.**

Bruunsgaard H; Galbo H; Halkjaer-Kristensen J; Johansen T L; MacLean D A; Pedersen B K

Copenhagen Muscle Research Centre, Department of Infectious Diseases, Denmark. infdishb@rh.dk

Journal of physiology (ENGLAND) Mar 15 1997, 499 ( Pt 3) p833-41, ISSN 0022-3751 Journal Code: 0266262

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

1. This study was performed to test the hypothesis that the exercise-induced increase in circulating \*cytokine\* levels is associated with muscle damage. Nine healthy young male subjects performed two high-intensity bicycle exercise trials separated by two weeks. The first trial...

... whereas the second consisted of 30 min of braking with reversed revolution (eccentric exercise). The work loads were chosen to give the same increases in \*heart\* rate and catecholamine levels in the blood during each trial. 2. Significant increases ( $P < 0.05$ ) in plasma concentration of creatine kinase (CK), aspartate aminotransferase...

...eccentric exercise caused a more pronounced increase in the plasma level of IL-6, compared with concentric exercise, supports the hypothesis that

the post-exercise \*cytokine\* production is related to skeletal muscle damage. The fact that no differences between eccentric and concentric exercise were found in the recruitment of most blood mononuclear cell subsets to the blood supports the hypothesis that the exercise-induced increase in plasma catecholamines is a major determinant of the \*mobilization\* of these cells into the blood. However, as eccentric exercise caused a more pronounced increase in the concentration of NK cells and CD8+ cells, factors...

11/3,K/6 (Item 6 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10242869 96044261 PMID: 7551981

**Nutrition and allojection impact of lipids.**

Grimm H; Tibell A; Norrlind B; Schott J; Bohle R M

Department of Transplantation Surgery, Huddinge Hospital, Stockholm.

Transplant immunology (ENGLAND) Mar 1995, 3 (1) p62-7, ISSN

0966-3274 Journal Code: 9309923

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

... n-6 fatty acids are claimed to have immunomodulating properties. The impact of nutritional variations on transplant rejection was therefore studied in the heterotopic rat \*heart\* allotransplant model with particular focus on lipids. Twenty per cent fat emulsions with differing n-3/n-6 fatty acid ratios were continuously infused (9...

... effect of lipids. Both n-6 and n-3 fatty acids, if applied as the main fatty acid source, exert immunosuppressive effects by diminished infiltration, \*mobilization\* and \*cytokine\* release by immunocompetent cells. A n-3/n-6 fatty acid ratio of 1/2 proved to be immunologically neutral. The recipient's disposition to...

11/3,K/7 (Item 7 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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09413086 21180049 PMID: 11283669

**Neovascularization of ischemic myocardium by human bone-marrow-derived angioblasts prevents cardiomyocyte apoptosis, reduces remodeling and improves cardiac function.**

Kocher A A; Schuster M D; Szabolcs M J; Takuma S; Burkhoff D; Wang J; Homma S; Edwards N M; Itescu S

Department of Surgery, Columbia University, New York, New York, USA.

Nature medicine (United States) Apr 2001, 7 (4) p430-6, ISSN

1078-8956 Journal Code: 9502015

Comment in Nat Med. 2001 Apr;7(4) 412-3; Comment in PMID 11283662

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Left ventricular remodeling is a major cause of progressive \*heart\* failure and death after \*myocardial\* infarction. Although neoangiogenesis within the infarcted tissue is an integral component of the remodeling process, the capillary network is unable to support the greater demands of the hypertrophied \*myocardium\*, resulting in progressive loss of viable tissue, infarct extension and fibrous replacement. Here we show that bone marrow from adult humans contains endothelial precursors with...

... that these can be used to directly induce new blood vessel formation in the infarct-bed (vasculogenesis) and proliferation of preexisting



vasculature (angiogenesis) after experimental \*myocardial infarction. The neoangiogenesis resulted in decreased apoptosis of hypertrophied myocytes in the peri-infarct region, long-term salvage and survival of viable \*myocardium\*, reduction in collagen deposition and sustained improvement in cardiac function. The use of \*cytokine\*-mobilized autologous human bone-marrow-derived angioblasts for revascularization of infarcted \*myocardium\* (alone or in conjunction with currently used therapies) has the potential to significantly reduce morbidity and mortality associated with left ventricular remodeling.

; Adult; Antigens, CD34--metabolism--ME; Apoptosis; Blood Vessels  
--cytology--CY; Cells, Cultured; Granulocyte Colony-Stimulating Factor  
--pharmacology--PD; Heart--physiopathology--PP; Hematopoietic Stem Cell  
\*Mobilization\*; Hypertrophy; Myocardial Ischemia--pathology--PA;  
Myocardial Ischemia--physiopathology--PP; Myocardium--pathology--PA;  
Neovascularization, Physiologic; Rats; Rats, Nude; Ventricular Remodeling

11/3,K/8 (Item 8 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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08721280 20000347 PMID: 10532547

**Comparison of chimeric acid and non-chimeric tolerance using posttransplant total lymphoid irradiation: cytokine expression and chronic rejection.**

Hayamizu K; Lan F; Huie P; Sibley R K; Strober S  
Department of Medicine, Stanford University, California 94305-5111, USA.  
Transplantation (UNITED STATES) Oct 15 1999, 68 (7) p1036-44, ISSN  
0041-1337 Journal Code: 0132144  
Contract/Grant No.: AI-37683; AI; NIAID  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed

BACKGROUND: Previous studies showed that an intravenous infusion of donor blood cells facilitates tolerance to ACI \*heart\* allografts in Lewis rat hosts given posttransplant total lymphoid irradiation (TLI) and anti-thymocyte globulin (ATG). The object of the current study was to compare tolerance induction using donor cells that do or do not induce chimerism. METHODS: Normal peripheral blood mononuclear cells (PBMC), granulocyte colony-stimulating factor (G-CSF)-mobilized PBMC, and bone marrow (BM) cells from ACI donors were tested for their capacity to prolong ACI \*heart\* allograft survival in Lewis hosts. Chimerism, anti-donor cell reactivity, and \*cytokine\* gene expression in grafts were determined. RESULTS: Intravenous injections of equal numbers of all three donor cells markedly prolonged graft survival (median: >164 to >175...

... was determined by immunofluorescent staining in hosts bearing long-term (> 150 days) grafts. Although no chimerism was detected in hosts given normal or G-CSF-mobilized PBMC, chimerism was detected at variable levels in all hosts given BM cells. Vigorous anti-donor reactivity in the mixed leukocyte reaction was present only...

... normal ACI PBMC developed chronic rejection, but those from hosts given ACI BM cells did not. The latter hosts showed the lowest levels of intragraft \*cytokine\* mRNA. CONCLUSIONS: Chimeric tolerance is more robust than non-chimeric tolerance in the model of posttransplant TLI, ATG, and donor cell infusion, and is associated...

11/3,K/9 (Item 1 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)

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13646158 BIOSIS NO.: 200200274979

**\*Cytokine\*-mediated \*mobilization\* of bone marrow cells repairs the**

**infarcted \*heart\* improving function and decreasing mortality.**  
AUTHOR: Anversa Piero(a); Kajstura Jan(a); Chimenti Stefano(a); Limana  
Federica(a); Jakoniuk Igor(a); Quaini Federico(a); Nadal-Ginard Bernardo  
(a); Bodine David M; Orlic Donald  
AUTHOR ADDRESS: (a)NY Med Coll, Valhalla, NY\*\*USA  
JOURNAL: Circulation 104 (17 Supplement):pII271 October 23, 2001  
MEDIUM: print  
CONFERENCE/MEETING: Scientific Sessions 2001 of the American Heart  
Association Anaheim, California, USA November 11-14, 2001  
ISSN: 0009-7322  
RECORD TYPE: Citation  
LANGUAGE: English

**\*Cytokine\*-mediated \*mobilization\* of bone marrow cells repairs the  
infarcted \*heart\* improving function and decreasing mortality.**

11/3,K/10 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13591507 BIOSIS NO.: 200200220328

**Infusion of G-CSF-\*mobilized\* donor leukocytes into transiently  
tacrolimus-treated recipients upregulates IL-10 production and  
down-regulates expression of inflammatory cytokines in heart allografts.**

AUTHOR: Hayamizu Keisuke(a); Egi Hiroyuki(a); Ohmori Ichiro(a); Kitayama  
Teruhiko(a); Asahara Toshimasa(a)

AUTHOR ADDRESS: (a)Surgery II, Faculty of Medicine, Hiroshima University,  
Hiroshima\*\*Japan

JOURNAL: Blood 98 (11 Part 1):p646a November 16, 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of  
Hematology, Part 1 Orlando, Florida, USA December 07-11, 2001

ISSN: 0006-4971

RECORD TYPE: Abstract

LANGUAGE: English

**Infusion of G-CSF-\*mobilized\* donor leukocytes into transiently  
tacrolimus-treated recipients upregulates IL-10 production and  
down-regulates expression of inflammatory cytokines in heart allografts.**

...ABSTRACT: type 1 to type 2, we examined the effects of combination  
therapy using donor treatment with G-CSF and recipient treatment with  
tacrolimus on rat \*heart\* allograft survival. Lewis recipients (RT11)  
were given a single i.m. injection of 2 mg/kg tacrolimus before starting  
heterotopic transplant of DA hearts (RT1a...

...of 125 mug/kg twice a day for 5 days, and isolated leukocytes were  
infused to the recipients after surgery. Infusion of DA G-CSF-\*mobilized\*  
leukocytes dose-dependently facilitated graft survival prolongation in  
the tacrolimus-treated recipients, while all recipients given DA normal  
blood died of severe diarrhea within 6 days. G-CSF-\*mobilized\* leukocytes  
secreted 6-times higher levels of IL-10 after LPS stimulation in vitro  
than did untreated rat leukocytes. Flow cytometry with intracellular  
IL-10 staining demonstrated that phenotype of the major subset producing  
IL-10 is CD 11b/c+ NKR-P1A<sup>low</sup>. Expression levels of \*cytokine\* mRNA in  
\*heart\* allografts were comparatively quantitated by reverse  
transcription followed by real-time PCR. IL-10 mRNA levels at 24 hours  
after surgery were 4-times higher in the recipients given the \*mobilized\*  
leukocyte infusion than those of the controls. Significant IL-10  
upregulation was not detected in the spleen, liver or circulating  
leukocytes though 51Cr-labeled G-CSF-\*mobilized\* DA leukocytes  
accumulated to such sites as well as the \*heart\* graft. Gene expressions  
of IL-2, IFN-gamma and IL-4 were below the normal \*heart\* levels by  
treatment with tacrolimus only, and IL-12 p35 was remarkably  
down-regulated by addition of G-CSF-mobilized leukocyte infusion. On day  
6, the expression levels of IFN-gamma and IL-2 in the \*mobilized\*

leukocyte-infused group remained half or lower than the control levels. Allograft-specific IL-10-dominant upregulation followed by downregulation of rejection-associated type-1 cytokines and graft survival prolongation can be achieved by combination therapy using tacrolimus treatment of the recipient and infusion of donor-type G-CSF-\*mobilized\* leukocytes.

11/3,K/11 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13463671 BIOSIS NO.: 200200092492

**The endotoxin, \*cytokine\* and metabolic response to exercise in patients with chronic \*heart\* failure and healthy controls.**

AUTHOR: Rauchhaus M(a); Doehner W; Schmidt H B(a); Mueller-Werdan U(a); Werdan K(a)

AUTHOR ADDRESS: (a)Cardiology Dept., Martin-Luther-Universitaet Halle, Halle/Saale\*\*Germany

JOURNAL: European Heart Journal 22 (Abstract Supplement):p683 September, 2001

MEDIUM: print

CONFERENCE/MEETING: XXIII Congress of the European Society of Cardiology together with the 36th Annual General Meeting of the Association for

European Paediatric Cardiology Stockholm, Sweden September 01-05, 2001

ISSN: 0195-668X

RECORD TYPE: Citation

LANGUAGE: English

**The endotoxin, \*cytokine\* and metabolic response to exercise in patients with chronic \*heart\* failure and healthy controls.**

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: ...\*mobilization\*, release, toxin

11/3,K/12 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12249831 BIOSIS NO.: 200000003333

**Comparison of chimeric and non-chimeric tolerance using posttransplant total lymphoid irradiation: Cytokine expression and chronic rejection.**

AUTHOR: Hayamizu Keisuke; Lan Fengshuo; Huie Philip; Sibley Richard K; Strober Samuel(a)

AUTHOR ADDRESS: (a)Division of Immunology and Rheumatology, Stanford University, 300 Pasteur Drive, Room S105B, Stanford, CA, 94305-5111\*\*USA

JOURNAL: Transplantation (Baltimore) 68 (7):p1036-1044 Oct. 15, 1999

ISSN: 0041-1337

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: Background: Previous studies showed that an intravenous infusion of donor blood cells facilitates tolerance to ACI \*heart\* allografts in Lewis rat hosts given posttransplant total lymphoid irradiation (TLI) and anti-thymocyte globulin (ATG). The object of the current study was to compare tolerance induction using donor cells that do or do not induce chimerism. Methods: Normal peripheral blood mononuclear cells (PBMC), granulocyte colony-stimulating factor (G-CSF)-\*mobilized\* PBMC, and bone marrow (BM) cells from ACI donors were tested for their capacity to prolong ACI \*heart\* allograft survival in Lewis hosts. Chimerism, anti-donor cell reactivity, and \*cytokine\* gene expression in grafts were determined. Results: Intravenous injections of equal numbers of all three donor cells markedly prolonged graft survival (median: > 164 to > 175...

...determined by immunofluorescent staining in hosts bearing long-term (> 150 days) grafts. Although no chimerism was detected in hosts given

normal or G-CSF-\*mobilized\* PBMC, chimerism was detected at variable levels in all hosts given BM cells. Vigorous anti-donor reactivity in the mixed leukocyte reaction was present only...

...normal ACI PBMC developed chronic rejection, but those from hosts given ACI BM cells did not. The latter hosts showed the lowest levels of intragraft \*cytokine\* mRNA. Conclusions: Chimeric tolerance is more robust than non-chimeric tolerance in the model of posttransplant TLI, ATG, and donor cell infusion, and is associated...

11/3,K/13 (Item 5 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

10930059 BIOSIS NO.: 199799551204

**Exercise-induced increase in serum interleukin-6 humans is related to muscle damage.**

AUTHOR: Bruunsgaard H(a); Galbo H; Halkjaer-Kristensen J; Johansen T L; MacLean D A; Pedersen B K  
AUTHOR ADDRESS: (a)Copenhagen Muscle Res. Centre, Dep. Infectious Diseases M7641, Rigshospitalet, Tagensvej 20, 220\*\*Denmark  
JOURNAL: Journal of Physiology (Cambridge) 499 (3):p833-841 1997  
ISSN: 0022-3751  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: 1. This study was performed to test the hypothesis that the exercise-induced increase in circulating \*cytokine\* levels is associated with muscle damage. Nine healthy young male subjects performed two high-intensity bicycle exercise trials separated by two weeks. The first trial...

...whereas the second consisted of 30 min of braking with reversed revolution (eccentric exercise). The work loads were chosen to give the same increases in \*heart\* rate and catecholamine levels in the blood during each trial. 2. Significant increases (P lt 0.05) in plasma concentration of creatine kinase (CK), aspartate...

...eccentric exercise caused a more pronounced increase in the plasma level of IL-6, compared with concentric exercise, supports the hypothesis that the post-exercise \*cytokine\* production is related to skeletal muscle damage. The fact that no differences between eccentric and concentric exercise were found in the recruitment of most blood mononuclear cell subsets to the blood supports the hypothesis that the exercise-induced increase in plasma catecholamines is a major determinant of the \*mobilization\* of these cells into the blood. However, as eccentric exercise caused a more pronounced increase in the concentration of NK cells and CD8+ cells, factors...

11/3,K/14 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2003 Elsevier Science B.V. All rts. reserv.

06825050 EMBASE No: 1997107544

**Exercise-induced increase in serum interleukin-6 in humans is related to muscle damage**

Bruunsgaard H.; Galbo H.; Halkjaer-Kristensen J.; Johansen T.L.; MacLean D.A.; Pedersen B.K.  
H. Bruunsgaard, Copenhagen Muscle Research Centre, Department of Infectious Diseases, M7641, Rigshospitalet, Tagensvej 20, 2200 Copenhagen N Denmark  
AUTHOR EMAIL: infdishb@rh.dk  
Journal of Physiology ( J. PHYSIOL. ) (United Kingdom) 1997, 499/3 (833-841)  
CODEN: JPHYA ISSN: 0022-3751

DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 16

1. This study was performed to test the hypothesis that the exercise-induced increase in circulating \*cytokine\* levels is associated with muscle damage. Nine healthy young male subjects performed two high-intensity bicycle exercise trials separated by two weeks. The first trial...

...whereas the second consisted of 30 min of braking with reversed revolution (eccentric exercise). The work loads were chosen to give the same increases in \*heart\* rate and catecholamine levels in the blood during each trial. 2. Significant increases ( $P < 0.05$ ) in plasma concentration of creatine kinase (CK), aspartate aminotransferase...

...eccentric exercise caused a more pronounced increase in the plasma level of IL-6, compared with concentric exercise, supports the hypothesis that the post-exercise \*cytokine\* production is related to skeletal muscle damage. The fact that no differences between eccentric and concentric exercise were found in the recruitment of most blood mononuclear cell subsets to the blood supports the hypothesis that the exercise-induced increase in plasma catecholamines is a major determinant of the \*mobilization\* of these cells into the blood. However, as eccentric exercise caused a more pronounced increase in the concentration of NK cells and CD8+ cells, factors...

11/3,K/15 (Item 2 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2003 Elsevier Science B.V. All rts. reserv.

06413118 EMBASE No: 1996076706

**Production and characterization of spontaneous rat heart endothelial cell lines**

Derhaag J.G.; Duijvestijn A.M.; Emeis J.J.; Engels W.; Van Breda Vriesman P.J.C.

Department of Immunology, University of Limburg, P.O. Box 616,6200 MD Maastrich Netherlands

Laboratory Investigation ( LAB. INVEST. ) (United States) 1996, 74/2 (437-451)

CODEN: LAINA ISSN: 0023-6837

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Endothelial cells (EC) are important regulatory cells in physiology and pathology, in vitro studies with rat EC from \*heart\* tissue are hampered by laborious isolation and purification procedures, low yield, and limited lifespan of the cells. Therefore, it is essential to obtain long-term \*heart\* EC lines that offer a more adequate in vitro system for studying rat \*heart\* EC. An ex vivo perfusion model was used to isolate EC from rat \*heart\*. Isolation and culture conditions were modified to allow spontaneous development of immortalized rat \*heart\* EC (RHEC) lines. Produced cell lines were tested for endothelial nature using a panel of markers. The selected RHEC lines were subsequently tested for a...

...All three lines expressed major histocompatibility complex (MHC) class I but no MHC class II. Intercellular adhesion molecule 1 was only expressed by RHEC-3. \*Cytokine\* stimulation induced vascular cell adhesion molecule 1 in RHEC-3 and RHEC-11 as well as MHC class II in all three lines in different quantities. The phenotypic characteristics of the different RHEC lines resembled the \*myocardial\* microvascular endothelium in situ. The three lines expressed angiotensin-converting enzyme, and they responded to histamine and ATP but not to thrombin and bradykinin. They...

...prostaglandin E2. Therefore, we conclude the following. 1) The described isolation and culture technique is successful for production of spontaneous stable EC lines from rat \*heart\*. 2) RHEC-3, -10, and -11 can be considered

a series of different lines representative of the heterogeneity of \*heart\* microvascular endothelium in vivo. 3) The RHEC lines offer a series of valuable tools to study various \*heart\* EC functions and mechanisms in physiology and pathology.

MEDICAL DESCRIPTORS:

animal cell; animal tissue; antigen expression; article; calcium  
\*mobilization\*; carcinogenesis; hemangioma; nonhuman; phenotype; priority  
journal; rat  
?ds

Set	Items	Description
S1	3506	(HEART OR MYOCARDIUM OR MYOCARDIAL) (S) (CYTOKINE OR SCF)
S2	52	S1 (S) (STEM (W) CELL?)
S3	13	S2 AND (MOBILIZATION OR MOBILIZED)
S4	9	RD (unique items)
S5	9	RD (unique items)
S6	9	S2 AND (REPAIR OR REGENERATE OR GENERATE OR DAMAGED)
S7	5	RD (unique items)
S8	1	S7 NOT S4
S9	36	S1 AND (MOBILIZATION OR MOBILIZED)
S10	24	RD (unique items)
S11	15	S10 NOT S4

?s (cardiac (w) stem (w) cell?)

Processing

706626 CARDIAC  
308808 STEM  
7820168 CELL?

S12 23 (CARDIAC (W) STEM (W) CELL?)

?rd

...completed examining records

S13 14 RD (unique items)

?s s13 not s11

14 S13

15 S11

S14 14 S13 NOT S11

?t s14/3,k/all

**14/3,K/1 (Item 1 from file: 155)**

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

14885648 22643296 PMID: 12698252

**New directions in strategies using cell therapy for heart disease.**

Itescu Silviu; Schuster Michael B; Kocher Alfred A  
Transplantation Immunology, Columbia-Presbyterian Medical Center, 630  
West 168th Street, PH 14 Central, NY 10032, New York, USA, si5@columbia.edu

Journal of molecular medicine (Berlin, Germany) (Germany) 04 16 2003,

81 (5) p288-96, ISSN 0946-2716 Journal Code: 9504370

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

... regeneration of functional cardiac muscle after an ischemic insult to the heart could be achieved by either stimulating proliferation of endogenous mature cardiomyocytes or resident \*cardiac\* \*stem\* \*cells\* or by implanting exogenous donor-derived or allogeneic cells such as fetal or embryonic cardiomyocyte precursors, bone marrow derived mesenchymal stem cells, or skeletal myoblasts...

**14/3,K/2 (Item 2 from file: 155)**

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

14552115 22237132 PMID: 12324214

**The scarless heart.**

Leferovich John M; Heber Katz Ellen  
The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104, USA.  
Seminars in cell & developmental biology (England) Oct 2002, 13 (5)  
p327-33, ISSN 1084-9521 Journal Code: 9607332  
Document type: Journal Article; Review; Review Literature  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed

Over the past several years many mechanisms by which myocardial replacement could be achieved have been described. These include resident \*cardiac\* \*stem\* \*cells\* or circulating stem cells that can either differentiate into, or fuse to cardiomyocytes, or mature cells that can transdifferentiate into cardiomyocytes. However, the fact remains...

14/3,K/3 (Item 3 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

14537205 22326253 PMID: 12439633  
**Stem cells--clinical application and perspectives.**  
Brehm Michael; Zeus Tobias; Strauer Bodo Eckehard  
Internal Clinic B, Department of Cardiology, University of Duesseldorf, Germany. Brehmic@aol.com  
Herz (Germany) Nov 2002, 27 (7) p611-20, ISSN 0340-9937  
Journal Code: 7801231  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed

...can repopulate infarcted rodent myocardium and differentiate into both cardiomyocytes and new blood vessels. CONCLUSION: These data, coupled with the identification of a putative primitive \*cardiac\* \*stem\* \*cell\* population in the adult human heart, may open the way for novel therapeutic modalities for enhancing myocardial performance and treating heart failure.

14/3,K/4 (Item 4 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

14080081 22238582 PMID: 12352259  
**New frontiers in molecular pediatric cardiology.**  
Dees Ellen; Baldwin H Scott; et al  
Vanderbilt Medical Center, Department of Pediatric Cardiology, Vanderbilt University Medical Center, Nashville, TN 37232, USA.  
Ellen.Dees@vanderbilt.edu  
Current opinion in pediatrics (United States) Oct 2002, 14 (5)  
p627-33, ISSN 1040-8703 Journal Code: 9000850  
Document type: Journal Article; Review; Review Literature  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed

... novel cell-cell signaling involving migrating neural crest, the origins of the conduction system and initial embryonic heartbeat, and the possibility of a population of \*cardiac\* \*stem\* \*cells\* in the adult heart. The studies reviewed have potential clinical relevance in the near future and will be of interest to the clinician interested in...

14/3,K/5 (Item 5 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2003 The Dialog Corp. All rts. reserv.

10132296 22110771 PM 12115863

**\*Cardiac\* \*stem\* \*cells\***

Hughes Sian

St George's Hospital Medical School, London, UK. se.hughes@sghms.ac.uk

Journal of pathology (England) Jul 2002, 197 (4) p468-78, ISSN

0022-3417 Journal Code: 0204634

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

**\*Cardiac\* \*stem\* \*cells\***

... cells can repopulate infarcted rodent myocardium and differentiate into both cardiomyocytes and new blood vessels. These data, coupled with the identification of a putative primitive **\*cardiac\* \*stem\* \*cell\*** population in the adult human heart, may pave the way for novel therapeutic modalities for enhancing myocardial performance and treating end-stage cardiac disease. Copyright...

14/3,K/6 (Item 6 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

09852042 21664209 PMID: 11805849

**Myocyte renewal and ventricular remodelling.**

Anversa Piero; Nadal-Ginard Bernardo

Cardiovascular Research Institute, Department of Medicine, New York Medical College, Valhalla, New York 10595, USA. piero anversa@nymc.edu

Nature (England) Jan 10 2002, 415 (6868) p240-3, ISSN 0028-0836

Journal Code: 0410462

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

... goal. Unbeknown to us, however, myocyte regeneration may accomplish just that. Continuous cell renewal in the adult myocardium was thought to be impossible, but multipotent **\*cardiac\* \*stem\* \*cells\*** may be able to renew the myocardium and, under certain circumstances, can be coaxed to repair the broken heart after infarction.

14/3,K/7 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

14264260 BIOSIS NO.: 200300258289

**\*Cardiac\* \*stem\* \*cells\*: their regenerative potential after myocardial infarction.**

AUTHOR: Nadal-Ginard Bernardo(a)

AUTHOR ADDRESS: (a)Medicine, Cardiovasc. Res. Inst., New York Medical College, Vosburgh Pavilion, Valhalla, NY, 10595, USA\*\*USA E-Mail: b nadal-ginard@nymc.edu

JOURNAL: FASEB Journal 17 (4-5):pAbstract No 8732 March 2003 2003

MEDIUM: e-file

CONFERENCE/MEETING: FASEB Meeting on Experimental Biology: Translating the Genome San Diego, CA, USA April 11-15, 2003

SPONSOR: FASEB

ISSN: 0892-6638

RECORD TYPE: Abstract

LANGUAGE: English

**\*Cardiac\* \*stem\* \*cells\*: their regenerative potential after myocardial infarction.**

...ABSTRACT: spared wall, confirming that the new cells are anatomically



and functionally well differentiated myocytes. Thus, the primitive cardiac cells exhibit the properties expected for a \*cardiac\* \*stem\* \*cell\*: self-renewal, multipotency and clonogenicity. The existence of \*cardiac\* \*stem\* \*cells\* opens a new view of cardiac homeostasis.

DESCRIPTORS:

...ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cells\*--

14/3,K/8 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

14086822 BIOSIS NO.: 200300080851

**\*Cardiac\* \*stem\* \*cells\* (CSC) are endowed in niches of the adult mouse heart and possess the ability to divide and differentiate in the various cardiac lineages.**

AUTHOR: Cesselli Daniela(a); Kajstura Jan(a); Jakoniuk Igor(a); Urbanek Konrad(a); Kasahara Hideko; Nadal-Ginard Bernardo(a); Quaini Federico(a); Anversa Piero(a); Leri Annarosa(a)

AUTHOR ADDRESS: (a)New York Medical Coll, Valhalla, NY, USA\*\*USA

JOURNAL: Circulation 106 (19 Supplement):pII-286 November 5 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Abstracts from Scientific Sessions Chicago, IL, USA  
November 17-20, 2002

SPONSOR: American Heart Association

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**\*Cardiac\* \*stem\* \*cells\* (CSC) are endowed in niches of the adult mouse heart and possess the ability to divide and differentiate in the various cardiac lineages.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cell\*--

14/3,K/9 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

14086290 BIOSIS NO.: 200300080319

**Mobilization of resident \*cardiac\* \*stem\* \*cells\* constitutes an important additional treatment to angiotensin II blockade in the infarcted heart.**

AUTHOR: Jakoniuk Igor(a); Chimenti Stefano(a); Musso Ezio(a); Castaldo Clotilde(a); Mancarella Salvatore(a); Torella Daniele(a); Leri Annarosa(a); Kajstura Jan(a); Nadal-Ginard Bernardo(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)New York Medical Coll, Valhalla, NY, USA\*\*USA

JOURNAL: Circulation 106 (19 Supplement):pII-139 November 5 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Abstracts from Scientific Sessions Chicago, IL, USA  
November 17-20, 2002

SPONSOR: American Heart Association

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**Mobilization of resident \*cardiac\* \*stem\* \*cells\* constitutes an important additional treatment to angiotensin II blockade in the infarcted heart.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: resident \*cardiac\* \*stem\* \*cells\*--

METHODS & EQUIPMENT: \*cardiac\* \*stem\* \*cell\* treatment...

14/3,K/10 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

14085757 BIOSIS NO.: 2000079786

**\*Cardiac\* \*stem\* \*cell\* (CSC) growth and death differs in acute and chronic ischemic heart failure in humans.**

AUTHOR: Urbanek Konrad(a); Quaini Federico(a); Bussani Rossana(a); Silvestri Furio(a); Jakoniuk Igor(a); Beltrami Antonio P(a); Chimenti Cristina(a); Beltrami Carlo Alberto(a); Nadal-Ginard Bernardo(a); Leri Annarosa(a); Kajstura Jan(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)New York Medical Coll, Valhalla, NY, USA\*\*USA

JOURNAL: Circulation 106 (19 Supplement):pII383 November 5 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Abstracts from Scientific Sessions Chicago, IL, USA November 17-20, 2002

SPONSOR: American Heart Association

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**\*Cardiac\* \*stem\* \*cell\* (CSC) growth and death differs in acute and chronic ischemic heart failure in humans.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cells\*--

14/3,K/11 (Item 5 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

14085393 BIOSIS NO.: 200300079422

**Mobilization of \*cardiac\* \*stem\* \*cells\* (CSC) by growth factors promotes repair of infarcted myocardium improving regional and global cardiac function in conscious dogs.**

AUTHOR: Linke Axel(a); Castaldo Clotilde(a); Chimenti Stefano(a); Leri Annarosa(a); Kajstura Jan(a); Hinz Thomas H(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)New York Medical Coll, Valhalla, NY, USA\*\*USA

JOURNAL: Circulation 106 (19 Supplement):pII-52 November 5 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Abstracts from Scientific Sessions Chicago, IL, USA November 17-20, 2002

SPONSOR: American Heart Association

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**Mobilization of \*cardiac\* \*stem\* \*cells\* (CSC) by growth factors promotes repair of infarcted myocardium improving regional and global cardiac function in conscious dogs.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cells\*--

14/3,K/12 (Item 6 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

14084997 BIOSIS NO.: 200300079026

**Local mobilization of resident cardiac primitive cells by growth factors repairs the infarcted heart.**

AUTHOR: Chimenti Stefano(a); Barlucchi Laura(a); Limana Federica(a); Jakoniuk Igor(a); Cesselli Daniela(a); Beltrami Antonio P(a); Mancarella Salvatore(a); Castaldo Clotilde(a); Nadal-Ginard Bernardo(a); Leri Annarosa(a); Kajstura Jan(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)New York Medical Coll, Valhalla, NY, USA\*\*USA

JOURNAL: Circulation 106 (19 Supplement):pII-14 November 5 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Abstracts from Scientific Sessions Chicago, IL, USA November 17-20, 2002

SPONSOR: American Heart Association

ISSN: 0009-7322  
RECORD TYPE: Citation  
LANGUAGE: English

DESCRIPTORS:

...ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cells\*--

14/3,K/13 (Item 7 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

13635270 BIOSIS NO.: 200200264091

**\*Cardiac\* \*stem\* \*cells\* mediate myocyte replication in the young and senescent rat heart.**

AUTHOR: Kajstura Jan(a); Leri Annarosa(a); Castaïdo Clotilde(a); Quaini Federico(a); Mancarella Salvatore(a); Nadal-Ginard Bernardo(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)NY Med Coll, Valhalla, NY\*\*USA

JOURNAL: Circulation 104 (17 Supplement):pII220 October 23, 2001

MEDIUM: print

CONFERENCE/MEETING: Scientific Sessions 2001 of the American Heart Association Anaheim, California, USA November 11-14, 2001

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**\*Cardiac\* \*stem\* \*cells\* mediate myocyte replication in the young and senescent rat heart.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cell\*--

14/3,K/14 (Item 8 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

13634834 BIOSIS NO.: 200200263655

**\*Cardiac\* \*stem\* \*cells\* regenerate myocardium in ischemic heart failure.**

AUTHOR: Quaini Federico(a); Urbanek Konrad(a); Leri Annarosa(a); Beltrami Antonio P(a); Kajstura Jan(a); Nadal-Ginard Bernardo(a); Anversa Piero(a)

AUTHOR ADDRESS: (a)NY Med Coll, Valhalla, NY\*\*USA

JOURNAL: Circulation 104 (17 Supplement):pII129 October 23, 2001

MEDIUM: print

CONFERENCE/MEETING: Scientific Sessions 2001 of the American Heart Association Anaheim, California, USA November 11-14, 2001

ISSN: 0009-7322

RECORD TYPE: Citation

LANGUAGE: English

**\*Cardiac\* \*stem\* \*cells\* regenerate myocardium in ischemic heart failure.**

DESCRIPTORS:

ORGANISMS: PARTS ETC: \*cardiac\* \*stem\* \*cell\*--  
?ds

Set	Items	Description
S1	3506	(HEART OR MYOCARDIUM OR MYOCARDIAL) (S) (CYTOKINE OR SCF)
S2	52	S1 (S) (STEM (W) CELL?)
S3	13	S2 AND (MOBILIZATION OR MOBILIZED)
S4	9	RD (unique items)
S5	9	RD (unique items)
S6	9	S2 AND (REPAIR OR REGENERATE OR GENERATE OR DAMAGED)
S7	5	RD (unique items)
S8	1	S7 NOT S4
S9	36	S1 AND (MOBILIZATION OR MOBILIZED)
S10	24	RD (unique items)
S11	15	S10 NOT S4

S12 23 (CARDIAC STEM (W) CELL?)  
S13 14 RD (unique items)  
S14 14 S13 NOT S11

?logoff

10jun03 12:44:53 User259876 Session D512.2  
\$4.64 1.451 DialUnits File155  
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\$8.84 Estimated cost File155  
\$7.95 1.420 DialUnits File5  
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\$28.00 16 Types  
\$35.95 Estimated cost File5  
\$30.47 3.294 DialUnits File73  
\$7.65 3 Type(s) in Format 3  
\$7.65 3 Types  
\$38.12 Estimated cost File73  
OneSearch, 3 files, 6.165 DialUnits FileOS  
\$2.32 TELNET  
\$85.23 Estimated cost this search  
\$85.59 Estimated total session cost 6.256 DialUnits

### Status: Signed Off. (10 minutes)